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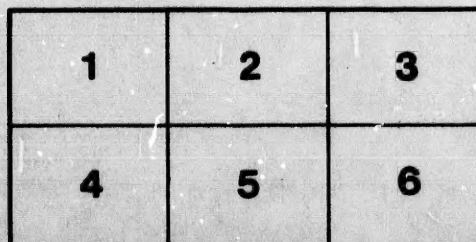
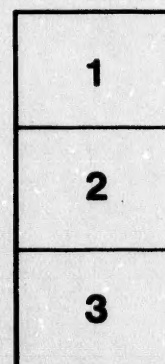
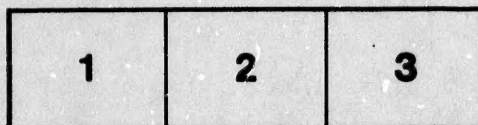
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THE
NATIONAL DEFENCES:
OR,
OBSERVATIONS
ON THE
Best Defensive Force for Canada.

BY
CAPTAIN GEORGE T. DENISON, JR.,
Commanding No. 1 Troop York Volunteer Cavalry.

"When a nation is without establishments and a military system, it is very difficult to
organize an army."—NAPOLEON'S MAXIMS.

TORONTO:
PRINTED AT THE LEADER STEAM-PRESS, 63 KING STREET EAST.

1861

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NATIONAL DEFENSES:

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CAPTAIN GEORGE T. DENISON, JR.

Commanding the 1. Troop, 1st Cavalry, Cavalry

It has been a matter of some interest to the writer to observe the progress of the Canadian military forces in the last few years.

There has been a steady increase in the number of troops, and a corresponding increase in the quality of the equipment.

The Canadian military forces are now in a position to meet any emergency that may arise.

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OBSERVATIONS

ON THE

Best Defensive Force for Canada.

CHAPTER I.

REASONS FOR SUPPORTING A DEFENSIVE FORCE IN CANADA.

After the close of the wars of the French Revolution in 1815, the civilized world enjoyed a lengthened period of peace. During this peaceful epoch the world made the most gigantic strides in civilization ; astounding discoveries in science were brought to light, and the finer arts, encouraged by the universal peace and prosperity, flourished in the most extraordinary manner.

This happy state of affairs continued for so long a period, that many began to hope it would last forever, and there were not wanting those who declared that the human race had become so civilized and enlightened, that they would never again degrade themselves by engaging in so barbarous an occupation as war, and that a reign of perpetual peace was already beginning to shed a beneficial influence over the affairs of the world.

The late war with Russia, the late wars in Italy, and the war now raging on this continent, prove, however, that notwithstanding the preaching of the apostles of perpetual peace, and the predictions of would-be philosophers, the

era of war has not yet passed away, the millenium has not yet arrived, and although man is now more enlightened and civilized than in the dark ages of history, yet the same feelings of ambition, pride and hatred, which in former days led him to engage in war and bloodshed, exercise their influence in a similar manner, and with like effect at the present day.

Taking it for granted, then, that war may arise in the future, we may consider : first, what probability there is of Canada ever being embroiled in war ; and secondly, what steps she should take with reference to that probability.

Canada, as a colony of Great Britain, will always be liable to be engaged in the wars of Great Britain. Although this rule will apply to the case of war with any European nation, I shall here consider more particularly the contingency of a war with the United States, as in this latter case we should be the more certain to be engaged actively in the conflict, and this country would in all probability be the principal scene of active operations.

On account of the war in the neighboring Republic, there are many reasons why Canada should be in a better defensive condition than she has hitherto been. I will here briefly enumerate a few of them :—

1. When two nations or powers are at war it is always desirable that neutral nations bordering on the territory of belligerents, should have a powerful armed force to support and enforce the neutrality.
2. When war continues for any length of time between two nations, neutrals on the borders are often unable to avoid engaging on one side or the other.
3. When peace is proclaimed between the Southern and Northern States, a large body of armed and drilled men will be thrown out of employment, and may in some in-

stances be induced to make fillibustering expeditions into our territory for the sake of plunder.

4. Another reason that Canada should support a strong military force is, that peace being proclaimed between the United and Confederate States, they will still be rival powers with rival interests, and will therefore be obliged to keep up standing armies for the purposes of defense. Formerly when the United States supported but a very small standing army, Canada required but a very small defensive force, but now, since the United States have an army of 500,000 men, we should certainly be prepared for whatever contingencies may arise either during this war or immediately after it.

CHAPTER II.

OBSERVATIONS ON THE BEST DESCRIPTION OF FORCE FOR DEFENSIVE PURPOSES.

These pages are written for the purpose of collecting together in a compact shape, a few of the principal arguments in favor of the cavalry as a defensive force. The cavalry at the present day, for many reasons which shall hereafter be enumerated, have been generally decried and neglected. I shall endeavor to explain away those reasons, and by historical examples show what the cavalry have done in the wars of history; and will endeavor also to place the arguments in favor of that force in as powerful a light as possible, in the hope that it may be of some advantage to the cavalry of this Province.

As an officer of the Volunteer Cavalry I naturally take a deep interest in the welfare and reputation of the force I belong to, and if in considering the subject I speak freely and without reserve, or if I carry any of my propositions too far, I hope that my brother officers of the other forces

will not take offence at my opinions, or be annoyed at my remarks, when they remember that I am a cavalry officer.

CHAPTER III.

CIRCUMSTANCES THAT HAVE BEEN UNFAVORABLE TO CAVALRY.

There are many circumstances that have exercised a prejudicial effect on the cavalry force. I shall here confine myself to briefly mentioning a few of them. In the first place the equipments for both man and horse are so expensive; and the cost of the horse and his food and stabling, all necessitate so large an outlay in their organization, that many governments are cautious about supporting a large proportion of that arm of the service, losing sight of the fact that although one regiment of cavalry costs as much as two regiments of infantry, yet a cavalry regiment is of as much service to an army, and is able to make as great an impression on an enemy, as three regiments of infantry. The difficulty of feeding a mounted force also militates strongly against it.

Another reason of the deterioration of cavalry is the difficulty of obtaining good officers. Without a bold and able commander, cavalry will do nothing worthy of note, and when the cavalry do not perform great deeds the cause is to be attributed more to the General than to the force itself. A sufficient number of able generals of infantry has been found at all times, in all armies, but very rarely one of cavalry. The reason of this is, that infantry perform their duty quietly and collectedly; the cavalry, impelled by excitement, boldly, rashly and impetuously. An infantry officer requires therefore to be rational and prudent, as he has time to reflect. A cavalry general requires a rare combination, he must be rational and unreflecting; he must be rash and yet prudent:

that is, he must seize the time to attack with wisdom and prudence, nay, almost with inspiration; and the moment the order is given it should be executed with the greatest rashness and temerity.

On this point Count Bismark, in his work on cavalry tactics, says:—"The movement of cavalry requires a quick *coup d'oeil*—a calm, firm mind, a boldness sometimes rash, sometimes cautious; in a word, much talent."

Seidlitz possessed this combination in a remarkable manner, and understood the secret of hitting the right time for boldness and that for precaution. How bold and brilliant he appears at Rosbach and Zorndorf? how circumspect and cautious at Kunersdorf?

To show whether the English system of officering the cavalry is likely to bring out the right men, I will quote from Beamish's *Uses of Cavalry in War* on the subject:—

"The deficiency of good cavalry officers in the British service—now that the veterans of the Peninsula have passed away—cannot be denied; and this want will continue to exist so long as the system of promotion by purchase and without qualification, is sanctioned by authority. The majority of those who hold commissions in cavalry regiments are the sons or relatives of persons in the middle classes of society, who never dream of making the army their profession, and generally retire on obtaining the rank of Captain. A wealthy merchant or manufacturer, laudably desirous of pushing on his family in the world, makes a bargain for the purchase for his son of a commission in a dragoon regiment, without any reference to the youth's possession of any peculiar qualification for that service, and—if not plucked at Sandhurst for bad spelling—the aspirant is in due time gazetted to a cornetcy. The recruit shuffles through the adjutant's and riding-master's drill—

becomes thoroughly initiated in all the mysteries of the mess—never opens a book on professional subjects, and finds perhaps no encouragement to improve himself, either theoretically or practically, in the duties of the service which he has entered. A handsome sum above the regulated price of the commission soon secures him a lieutenancy—perhaps over the heads of old and meritorious officers—and the same means, a troop, having attained which and thus established ‘a handle to his name,’ he retires from the service, receiving back his original investment, and perhaps sometimes more; and making room for another worthy of the same calibre, who, in his turn gives place to a third, and thus the series is continued. Or, if the amateur has been gifted with a financial turn of mind, he finds that exchanging first into infantry is a more profitable mode of retreat than the direct method, and—no prohibition existing to such an exchange—although the infantry officer may be totally unsuited to cavalry—he accordingly ‘finds his man’ and thus resumes his place as a civilian. The whole affair is a commercial proceeding from beginning to end: a certain rank is purchased like the uniform by which it is distinguished, for a certain sum of money, and when the wearer is tired of the finery and the rank, the latter is sold, perhaps at considerable profit. This is the ordinary career of cavalry officers. Others, again, with more money and more ambition, persevere until they attain the rank of lieutenant-colonel, and then sell out, or retire on half pay, realizing or receiving back, sums ranging from £10,000 to £15,000.”

“England has the command of the bravest men, the boldest riders, and the swiftest and most powerful horses in the world, and ought therefore to have the finest cavalry; but we destroy the speed and endurance of the horses by placing giants upon them, while the degrading system of

conferring rank by purchase, instead of awarding it to *merit* and *seniority*, checks all professional exertion—prohibits the advancement of eligible men, and deprives the service of able leaders.”

Again the cavalry, representatives of the knights of republican and imperial Rome, representatives also of the order of chivalry of the middle ages, proud of the ancient glories of their service, proud of the history of all ages which proves undeniably that without cavalry, no victory can be brilliant, no pursuit successful, and proud also of their precedence over the other forces, often allow their pride to become overbearing, and often act with reproachable haughtiness.

Their haughtiness and pride have tended to increase the unpopularity of cavalry, and have in some instances induced officers of the other branches of the service to detract from their merits, and deny their usefulness as a military force.

The system of drill also used in most armies is generally very detrimental to the interests of the cavalry service. In the English army at reviews, cavalry regiments are taught to charge up to the faces of squares to receive a volley, which is the signal to go “threes about” or for retiring from the flanks. This practice is most injurious, and the result of it is that the horses soon learn that they are not to go in, and when they are brought before the enemy and the order is given to charge, they charge exactly as they have been taught, receive the volley as they have been accustomed, and immediately, according to their instruction go “threes about” and scamper off as fast as possible, and thus another instance is recorded of the superiority of infantry over cavalry. An example of this happened at the battle of Chillianwallah, where the 14th Light Dragoons

charged to the proper distance went "threes about" involuntarily (the men not knowing why) and ran away, occasioning the defeat of the whole of Pope's brigade, and yet the regiment did nothing more or less than what their horses had been carefully taught to do at reviews in the Phoenix Park.

On this point I fully agree with Col. Maudougal, who in his "Theory of War" says "It would be far better if the cavalry were exercised in charging a square of dummies and riding over them."

Another great evil in the present system of organizing cavalry, is the immense weight of unnecessary accoutrements the horse is made to carry, the light cavalry horse having generally to carry twenty-one stone. Speaking of this, Sir Charles Napier says, "The heavy cavalry horse, strange to say, carries less than the light cavalry, only twenty stone. A British regiment of cavalry on parade is a beautiful sight, give it six months hard work in the field, and while the horses fail the men lose confidence. The vanity of dress supersedes efficiency, take eight or ten stone off the weight carried and our cavalry will be the most efficient in the world."

Captain Henry Shakespeare writing on the same subject, says "If cavalry therefore is to take its noble and proper part in the battle field, and not be kept merely for pursuit, the weight of the man and his accoutrements must be proportioned to the build and power of his horse, and then it will become the most powerful of all three arms on the field of battle. It will be an irresistible missile launched at the speed almost of the cannon ball, sweeping armies off the field, riding down everything in its impetuous rush, like a vast rolling river in its devastating course, not to be turned aside by any impediments; such cavalry will be as far superior to the present cavalry, as the highest tempered

sword blade is to one of soft iron. It will mow down the foe both far and near, it will require no limbering or unlimbering, no elevating or depressing, no loading or sponging. There will be no missing fire, nothing in fact is required but the native courage of the most noble animal in the world, the blood horse, aided by the spur, and the spear, and the sabre, and the indomitable energy of men like those who rode in the death ride in the ranks at Balaklava, or like the Carthaginian cavalry under Hasdrubal, in the battle of Cannæ, who, after driving the Roman cavalry opposed to them off the field rode, down forty thousand of the famed legions of Imperial Rome and swept them from the face of the earth."

CHAPTER IV.

GENERAL ARGUMENTS IN FAVOR OF CAVALRY AS A DEFENSIVE FORCE.

Although in tactics cavalry is altogether an offensive force, yet in strategy it is a most powerful defensive one. The cause of this is, that in tactics (or when in sight of the enemy) the cavalry cannot fight in a stationary position. The predominating principle of cavalry consist in attack, and even in defensive operations, the real attack of the enemy can only be resisted by an anticipatory attack.

In strategy, however, the cavalry is decidedly the best for defensive purposes, and no invading force could gain any continued success against a sufficient number of cavalry properly managed. This is not my opinion, but it is the teaching of history, and the experience of ages, and as I have on a former occasion observed, if the examples of history, and the causes of the failure of all great invasions are carefully considered, and investigated, no one can fail to

perceive that the light cavalry are most peculiarly adapted to the purposes of defense.

Alexander the Great understood this principle and refrained from invading the territory defended by the Scythian tribes of horsemen. Darius penetrated into it and perished. Marc Antony and Crassus in their expeditions into Parthia were unable to withstand the incessant attacks of the Parthian horse, who without fighting pitched battles, continually hovered round the armies, cutting off the stragglers, capturing provisions, preventing foraging, and so harassing the Romans that they were completely defeated and destroyed, without having the opportunity of fighting one single battle.

Hannibal made a successful invasion into Italy, but the cause of his success was his great superiority in cavalry. In every battle he won the victory by his cavalry, and completed it by that force. And by means of his horse he was able to prevent the Romans foraging in their own country, and generally cut off from all supplies from Carthage, he was enabled to maintain himself in Italy for nearly sixteen long years.

In the same way Gustavus Adolphus in the "Thirty Years War" was obliged to wait in Prussia till strongly reinforced in cavalry, before he dare venture on the vast plains of Poland.

Again, if we consider the invasion of Russia by Napoleon, we can trace the whole cause of his failure to the preponderance of the Cossacks and other light cavalry of the Russian army. Speaking of the destruction of the Grand Army, Sir Archibald Alison says, "Of these causes, the most important place in a military point of view undoubtedly must be assigned to the immense preponderance which, when the French armies arrived at Moscow, was

obtained by the clouds of light horse who crowded to the Russian standards from the banks of the Don, and the other nomade provinces of the Empire. The more that memorable campaign of 1812 is studied, the more clearly it will appear that this was the real cause of the destruction of the French army, and that it must have proved equally fatal to them, even though Moscow had not been burned, or the frosts of winter had never set in."

This can be easily understood when we remember that through the exertions of the light cavalry of the Russian Empire, the convoys of provisions, clothing and stores for the army were cut off, and that the French suffered more from the want of food and clothing than from any other cause. Here we have an example of the greatest army that had ever been brought together by the greatest general of the most warlike era of later times, being completely annihilated and destroyed through the agency of light cavalry.

My own opinion formed from studying the results of great invasions is, that the best and surest way of defending a territory from an invading army would be by the use of cavalry in the following manner:—The defending army should consist of about one-third cavalry, a good force of horse artillery, and the remainder good riflemen, as soon as the armies approach each other, the cavalry should attack the enemy's cavalry in every instance, that they can surprise them when deprived of the support of the other forces, and should use their utmost exertions to destroy them. If by any means, through the preponderance of cavalry we are enabled to get the enemy's cavalry out of the way, the rest is easy. The cavalry of the defending army should then envelop the enemy, be continually hovering round them, they should never let a convoy of provisions or even a despatch reach them. They should also

cut off the outposts and patrols, and by incessant real and false attacks so annoy the enemy that they would be wearied out with incessant watching. If the enemy attempted to advance, the army could retire and choose a strong position for action, and having concentrated the cavalry on the main body, await the battle; if they were defeated, the enemy having no cavalry could gain no advantage, but if victorious the enemy would be destroyed. When an army is surrounded by an overwhelming force of cavalry it is completely paralyzed, for it cannot tell where it will be attacked, its communications are sure to be cut off, it cannot forage, it cannot get provisions, it cannot get information, it must keep concentrated, and its outposts are always in danger, and all this advantage is gained by the cavalry with very little loss, it is the true way to make a successful campaign.

It is to be hoped that the Legislature will consider the matter carefully, and in making arrangements for a defensive force for Canada that they will understand the advantage of organizing a numerous and efficient cavalry.

CHAPTER V.

OPINIONS OF GREAT GENERALS.

Hannibal, who commanded the horse in his father's army, had a very high opinion of cavalry, and in his advance into Italy he had a very large proportion of that force. At the battle of the Trebbia his army consisted of 20,000 foot and 10,000 horse, the Romans had 36,000 foot and 4,000 horse. How different the proportions in the two armies? As might be expected he gained the victory, and of 40,000 Roman soldiers only 10,000 reached Piacenza, the remainder were left on the field. In fact Hannibal won all his victories with his cavalry. At the battle of Zama he

was defeated, but there Scipio's cavalry was the most numerous, and immediately overthrew the Carthaginian cavalry opposed to them, and then attacked the infantry. 20,000 men were cut down in one moment, and Carthage became subject to Rome.

Alexander the Great passed into Asia with an army chiefly composed of infantry formed into phalanges. Once in Asia Minor he saw the necessity of having a large force of cavalry, and at once it seems, began to increase that part of his army; for we read that at the battle of Granicus he made 4,500 or 5,000 horse ford the river; the Persians fought bravely, but were at last driven off the field, chiefly it is said through the exertions of the Macedonian horse.

At the battle of Gaugamela the cavalry of the right wing was led by Alexander in person and mainly contributed to the victory. He then pursued the Persians at the head of his cavalry. After crossing the Lykus the men were allowed to rest till after twelve o'clock at night, then resuming the pursuit they arrived next day (the day after the battle) at Arbela, a distance of 600 stadiums (about 75 miles) the rapidity and dash of these operations show that Alexander the Great perfectly understood the use and application of cavalry in war.

Gustavus Adolphus also had the highest opinion of cavalry, he took the greatest interest in their manœuvres, and made many changes in their organization. He stripped the men of armour, and made them lighter, more active, and more useful.

Charles XII. was also greatly inclined to favor the cavalry, and knew what it was capable of accomplishing. His daring and chivalrous and impetuous nature was suited to the spirit of cavalry tactics. He led his horsemen, sword in hand against infantry, cavalry, and fortified posts over

any sort of country. He never tired in pursuit, and actually followed the Saxons, under Marshal Schulenberg, in their retreat into Silesia, for nine consecutive days without once unsaddling, overtook them at Sanitz, and with only two regiments of cavalry charged them, though ten thousand strong, rode over the infantry, who laid down to escape them, defeated the Saxon cavalry, and drove them off the field, then came back and attacked the infantry and guns, when night came on, and stopped the combat, and the enemy escaped in the darkness. All the guns fell into the hands of the Swedes.

Cromwell was one of our greatest cavalry leaders, and was always accustomed to drill his cavalry with the greatest care. His "Ironsides" attained a great celebrity, not only from their extraordinary discipline, but also from the important part they played in the wars of that period. Cromwell won the battles of Marston Moor and Naseby with the cavalry alone, when the other generals considered in both instances that the day was lost.

The great Condé had a very high opinion of cavalry and used to depend mainly on them to gain his battles—the battle of Rocroi was won by that force alone.

Montecucculi well knew the superiority of cavalry, he says:—"The most important act of an army is the battle, and the most effective force which operates therein is the cavalry, it must consequently decide the event. If the cavalry is beaten the battle is irretrievably lost; if, on the other hand, it is victorious, the victory is always complete."

Marlborough also had the highest opinion of the value of cavalry, and always endeavored to have as large a proportion of that force as possible. At the passage of the lines of Bouchain, in 1711, his force consisted of 129 battalions and 196 squadrons of cavalry; his opponent, Villars, had

also the large proportion of 186 squadrons to 131 battalions. At the battle of Blenheim, Marlborough's force consisted of 64 battalions and 166 squadrons, making about 32,000 infantry and 20,000 cavalry. By a charge of his numerous cavalry on Tallard's centre he won the battle; in fact, he gained nearly all his victories with that branch of his army.

Frederick the Great, on ascending the throne, found the cavalry very imperfectly drilled. After his first campaign he at once proceeded to reorganize that arm of the service, he began by doing away with all firing in line and bestowed great attention in making them good riders. Seidlitz formed his hussars in two ranks, the remainder of the cavalry soon followed his example, and the Russian cavalry, who in the first campaign of the "Seven Years War" had been constantly defeated, when properly reorganized and led by Zeithen and Seidlitz astonished the world by their deeds of arms, not only overthrowing cavalry in their headlong career, but sweeping whole armies of infantry off the field, as for example at the battles of Kesseldorf, Rossbach, Leuthen and Zorndorf. Out of twenty-two great battles fought by Frederick or his Generals, fifteen were decided by cavalry alone.

Napoleon says, "My decided opinion is that cavalry, if led by equally brave and resolute men must break infantry," an opinion contrary to that often received, but supported by not a few of the memorable facts recorded by history in all ages, and which coming from such a commander, who so well knew the value of both infantry and artillery, is well worthy of the most serious consideration.

I will quote here the opinion of Col. Macdougall, Commandant of the Royal Military Staff College at Sandhurst, who, although not a General, is nevertheless an officer of extensive military knowledge. In his work on the "Theory of War" he says, "No formation of infantry can resist the

shock of horses ridden as English Dragoons do ride in earnest. Who that has read of the charge of the light cavalry at Balaklava, but believes implicitly that that splendid chivalry would have swept away any infantry formation as foam before the hurricane, many saddles would have been emptied, doubtless as many were, but the survivors would have got in as the survivors did, and there would then have been short work of the infantry."

The above remarks concerning the opinions of great generals on the advantage of cavalry in war are hastily thrown together, and if necessary the opinions of many other generals might be added to the list. It is to be hoped that when the Legislature are considering the defenses of the Province, they may give more weight to the opinions of general officers of experience than to those of civilians, who either through prejudice or ignorance, may entertain the most incorrect views of the comparative merits of the various services.

CHAPTER VI.

EXAMPLES OF THE DEEDS OF CAVALRY IN HISTORY.

From some unaccountable reason there is a preconceived opinion among the majority of people generally, that cavalry have never been able to make any impression on infantry. And I have even met with those who have been so totally ignorant of military knowledge as to declare, that there had never yet been an instance of cavalry breaking a well-formed square of infantry.

I shall proceed in this chapter to produce cases where cavalry have been of great service, and shall consider first what they have accomplished in deciding the fate of battles; secondly, in attacks on entrenchments; thirdly, against artillery; and fourthly, against squares.

1. *Examples of cavalry deciding the fate of battles.*

At the battle of Gaugamela, Alexander the Great at the head of the cavalry of the right wing, defeated the left wing of the Persians (composed of horse) and followed them for some distance. Then led his cavalry to the rear of the Persian right to assist Parmenio who commanded the left wing, and having defeated them also, drove the whole Persian army off the field.

At the battle of the Trebbia, the Carthaginian horse drove the Roman cavalry off the field, and then returned and attacked the Roman Legions on all sides with such success that only one-fourth of the Roman infantry escaped from the field. At the battle of Cannæ Hannibal had only 40,000 foot and 10,000 horse. The Romans 80,000 foot and 6,000 horse. The opposing armies had cavalry on each flank. Hasdrubal first attacked the Roman horse with his cavalry, and drove them into the river Aufidus. The Roman infantry in the meantime were everywhere victorious. Hasdrubal who had done his work on the left suddenly appeared on the right, and having defeated the cavalry and detached the Numidians in pursuit, threw himself on the victorious Roman Legions, and in spite of their bravery, burst in among them and defeated them with immense slaughter. More than 40,000 Romans being slain, and the survivors made prisoners.

At Capua, A. D. 552, the Franks defeated the Roman infantry, but being deficient in cavalry, they were outflanked, and attacked by the Eunuch Narses, at the head of the Byzantine horse—and according to the historian, Agathias, only five soldiers out of 30,000 Franks escaped from the slaughter.

Marston Moor was also a cavalry victory, and was won by Cromwell by the same manœuvre that was used by

Hasdrubal at Cannæ, and Seidlitz at Zorndorf. These three great cavalry generals were first victorious on the left wing of their armies. They then passed to the right to restore the battle in that quarter, and they all three succeeded in breaking through the enemy's infantry; which again in all three cases fought bravely. These three great battles are reckoned as cavalry victories, for to the horsemen alone was due the success on all three occasions. Naseby was very similar to Marston Moor, in the tactics and manœuvres used, and in the results to the Parliamentary army.

Blenheim was another great cavalry victory. The French cavalry formed the centre of the line, supported by nine battalions of infantry. Marlborough brought up three Hessian battalions to front the infantry, and then drawing his sword led the advance. Alison, describing the scene, says: "Indescribably grand was the spectacle which ensued. In compact order, and the finest array, the allied cavalry mustering 8,000 sabres, moved up the gentle slope in two lines, at first slowly, but gradually more quickly as they drew nearer, and the fire of the artillery became more violent. The French horse, 10,000 strong, stood their ground at first firmly. So hot was the fire of musketry and cannon, when the assailants drew near, that their advance was checked; and the battle was kept up for a few minutes by a fire of artillery. Gradually, however, the fire of the enemy slackened, and Marlborough led his cavalry again to the charge, with irresistible vehemence the line dashed forward at full speed, and soon the crest of the ridge was passed. The French horsemen discharged their carbines at considerable distance with little effect, and immediately wheeled about and fled. The battle was gained. The allied horse rapidly inundated the open space between the two villages, and the nine battalions in the centre were surrounded, cut to pieces and taken."

Martborough's cavalry also mainly contributed to the victories of Ramilies, Oudenard and Malplaquet.

The cavalry of Frederick the Great won for him the battles of Strigau, Kesseldorf, Rossbach, Leuthen, and Zorndorf. This last was a great cavalry victory. The late Capt. Nolan in his cavalry tactics, speaking of this battle says, "This battle was the most glorious of all to the Prussian horsemen, who in thirty-six squadrons under Seidlitz, not only turned the fortune of the day, saved the infantry and artillery of their own army but checked the advance, overthrew the victorious Russian cavalry, driving it from the field, then returned to fall upon the Russian infantry, which prepared to receive the Prussians, fought with the most determined bravery. And when their masses were broken in by the furious horsemen those who escaped the sword threw themselves again into masses and had to be charged again and again. In no modern battle did so many men fall by the sword as at Zorndorf, though the Prussians had been for twelve hours on horseback before advancing to the charge."

The battle of Wurtzburg was also decided by the Austrian cavalry. In this battle Wartensleben at the head of the Austrian dragoons made a desperate charge, defeated the French horse, and having driven them off the field, returned to assist their infantry, and victory declared for the Austrians.

A charge of Kellerman's dragoons decided the battle of Marengo and placed Napoleon on the consular throne. I quote the account of Kellerman's charge in his own words: "Dessaix had driven back the enemy's tirailleurs on the main body, but at the aspect of this formidable column of 6,000 Hungarian grenadiers our troops hesitated. I was advancing in line even with them on the right of the road, being rather concealed by some vineyards, and observing everything which passed. It was no doubt at this instant

that Dessaix received his death wound, for after a tremendous discharge from the enemy I perceived our line waver. It bends and is on the point of giving way. The Austrians pursue in haste, they are in disorder and in confidence of victory. I perceive this. I am in the midst of them, and they have laid down their arms. All this passed in less time than it has taken me to write these half dozen lines. Thus did 200 men cause 6,000 grenadiers to lay down their arms."

The battle of Austerlitz was decided by the French cavalry of the guard under Bessieres and Rapp. After a desperate conflict victory declared for Napoleon. It is described by Alison in the following words: "The most desperate cavalry action that had taken place during the war ensued and lasted for above five minutes; the infantry on both sides advanced to support their comrades, the resolution and vigour of the combatants were equal; squadron to squadron, company to company, and man to man, they fought with invincible firmness, and soon the ground was strewn with dead and dying. At length, however, the stern obstinacy of the Russians yielded to the enthusiastic valour of the French. The cavalry and infantry of their guard gave way and after losing their artillery and standards were driven back in confusion almost to the walls of Austerlitz, while from a neighboring eminence the Emperors of Russia and Germany beheld the irretrievable rout of the flower of their army."

The battle of Jena was decided by cavalry. I quote the account from Alison: "Napoleon saw that the decisive moment had arrived and sent orders to Murat, with the whole cavalry to advance and complete the victory. This terrible mass was irresistible. Twelve thousand horse, fresh, unwearied in the finest array animated by the shouts of triumph, which they heard on all sides, bore down with

loud cheers, on the retiring lines of the Russians. In an instant the change was visible; in vain their cavalry so brilliant and effective in the early part of the day, strove to make head against the assailants, and cover the retreat of the infantry and cannon, their horses wearied by eight hours of fighting and fatigue were unable to withstand the fresh squadrons and ponderous cuirassiers of Murat, after a gallant resistance, the lines were broken, horse, foot and cannon pressed tumultuously to the rear, closely followed by the bloody sabres of Murat, in the general confusion all order was lost, the infantry and cavalry were blended together, the guns and caissons abandoned to the victors.

2. *Examples of cavalry attacks on entrenchments and lines.*

Alexander the Great was greatly assisted by his cavalry in his passage of the River Hydaspes, and would have been unable to accomplish his design without the assistance of that branch of his army.

At the storming of the lines round Mayence by the Austrians in 1795, a few squadrons of horse were attached to each column of attack and rode into the lines with the infantry, and together with a reserve of twenty-two squadrons, who were kept in readiness, were let loose on the enemy and achieved a complete victory.

At the passage of the lines of the Mehaigue in 1705 Marlborough ordered each trooper to provide himself with a small truss of forage as if the design was merely a rapid march, but in reality for the purpose of filling the ditch of the entrenchments. He then set off with thirty-eight squadrons, followed closely by twenty battalions. Having arrived at the River Gheet, the troops forded it, then filled the ditch with their bundles of hay, and rode across the lines in immense numbers. A large body of the French then attacked them. Marlborough who had passed with

the first squadrons, saw the necessity of immediate action, and himself headed a charge of cavalry against the French, who made an obstinate resistance, but were eventually driven away in disorder; and the main army coming up the allies were left in undisputed possession of the lines.

At the passage of the lines of Bouchain in 1711, Marlborough manœuvred so as to lead Villars to believe that he intended to attempt the passage at the left extremity of the lines. Villars acting on this belief concentrated his troops on the left, leaving the right of the lines almost undefended. Marlborough having accomplished this, set off suddenly in the night at the head of fifty squadrons for the right extremity of the lines, ordering the infantry to follow him with all haste. On arriving at Aubanchoiel-au-bac he crossed the lines almost without opposition, and before Villars came up he had obtained so secure a position that Villars declined attacking him and retired.

At the battle of Borodino the French cuirassiers under Caulaincourt stormed the great redoubt after the infantry had repeatedly attempted it and failed. Alison speaking of it says, "Caulaincourt advancing with the utmost rapidity overthrew the regiments Russian horse, Kutusoff had opposed to him while the great redoubt continued to vomit forth an incessant fire upon its assailants. Eugene with his infantry was advancing to the attack, the bayonets of his troops were already gleaming on its slope, when the column of cuirassiers were seen ascending through the clouds of smoke which enveloped the entrenchment, its sides seemed clothed in glittering steel, and the fire from its summit after redoubling in fury for a few seconds suddenly ceased. The flames of the volcano were extinguished in blood, and the resplendent casques of the French cuirassiers appeared when the smoke cleared away, above the highest embrasures of the entrenchment.

The attack on the entrenched camp at Ferozeshah, in India in 1845, is another instance of the use of cavalry against entrenchments. Our army having effected a junction with the force from Ferozapore proceeded to attack the enemy's entrenched camp at Ferozeshah. This was a parallelogram of about a mile long and half a mile broad, including within its area the strong village of Ferozeshah, and armed with 100 guns, of which more than 40 were of battering calibre. The attack was commenced about 3.30 p. m., about 4 p. m. the infantry having made no impression on the enemy, and a murderous fire having been kept up continuously from the Sikh guns, Major Balder's commanding the 3rd Light Dragoons, received an order to charge the batteries in front. At this point the greatest resistance was presented, the leading British infantry had been directed to be flat upon the ground, and masses of fire and smoke indicated the deadly encounter for which the cavalry were now destined. The undaunted cavalry having taken ground to the right, advanced to the charge in line with all the regularity of a field day movement and dashing onwards, White and Balders boldly leading the way. The batteries were cleared in a moment and every gun silenced.

In 1796, at Wurtzburg, Wartensleben, at the head of the cavalry of the Austrian army, swam the river Main, and left the bridge for the use of the infantry, and thereby the whole army crossed the river successfully, in spite of the efforts of the French under General Grenier.

3. *Cavalry against Artillery.*

Artillery unsupported by the other arms, would always be defeated by cavalry—for on account of the rapidity of the latter, it will be enabled to clear the intervening space with little loss, and capture the guns opposed to it.

At the battle of Jena, 14th Oct., 1806, Ney, by a charge of his cuirassiers carried a battery of sixteen pieces of cannon.

At the battle of Eckmuhl, 22nd April, 1809, the Bavarian cavalry of Napoleon's army captured a battery of thirty guns.

At the battle of Mockern, 16th Oct., 1813, Colonel Sohr was ordered by General Yorck to charge a battery of fifteen pieces of cannon, which had been established on the heights beyond Mockern, he passed through the Prussian infantry and burst on the advancing enemy, rode over and dispersed them, pursued them into the batteries, and captured the guns.

At the battle of Moodkee, the 3rd Light Dragoons captured several of the enemy's guns.

At Balaklava the light brigade captured thirty pieces of cannon, but being unsupported and attacked by overwhelming numbers, were unable to retain them.

4. Cavalry against Squares.

At the battle of Mons-en-Puelle, the Spanish infantry, under William von Julich, were almost entirely destroyed by the cavalry of Philip the Fair.

The Duke de Vendome, with his cavalry alone, annihilated the Spanish infantry at Marseilles.

Frederick the Great, at Fehrbellin, with 5,000 horse and twelve guns, attacked the Swedes, although superior in number, and completely defeated them.

At Melazzo, the victorious Austrian infantry, notwithstanding their fire and steadiness, were surrounded by the Spanish cavalry and cut to pieces.

At Rideau, 1st May, 1809, the regiment of Baden Dragoons, under Colonel Von Heimroth, made a charge on a battalion in square, which it completely annihilated.

At the battle of Frauenstadt, the whole of the Saxon infantry formed in squares were cut to pieces by the Swedish Dragoons.

At Hohenfriedberg, the dragoon regiment of Baireuth

rode over twenty-one battalions of infantry, took 4,000 prisoners, 66 stands of colours, and five pieces of cannon.

At Avesne-le-sec, four Austrian cavalry regiments, under Prince Lichtenstein and Count Belgarde, charged 3,000 French infantry with 20 guns, who formed in squares to receive the charge; the infantry were overthrown at the first onset; 2,000 men, five stands of colours, and 20 guns fell into the hands of the victors; the remainder of the French were cut down.

At Villiers-en-Couche, ten British and four Austrian squadrons defeated 15,000 French, part of this force dispersed the French cavalry, whilst the British and two Austrian squadrons broke through the French square, killed 900, and took 400 men prisoners, together with five pieces of cannon.

At the battle of Cateau Cambresis, 26th April, 1794, one regiment of Austrian cuirassiers and nine British squadrons defeated General Chappui's army 27,000 strong, inflicting a loss of 3,000 men, 22 guns, and 29 amunition waggons.

At Kaiserlautern, Marshal Blucher, at the head of 80 hussars, charged 600 French infantry. Though they were prepared to receive him, he broke in and killed, wounded, or captured the whole party.

At the battle of Austerlitz, the Russian cavalry broke the squares of French infantry of General Schinner's brigade, and a regiment of their lancers broke the square formed by the fourth regiment of the line, and captured their eagle.

At the battle of Auerstadt, the Prussian dragoon regiment of Irving, destroyed a French square, which stood firmly to the last, and gave them a volley at fifteen paces, which brought down nine officers and many men; but the dragoons were not to be stopped, they rushed in and cut them to pieces.

At Garcia Hernandez, 23rd July, 1812, three French

squares were broken by the king's German legion. At this action five dragoons actually charged one square by themselves, broke in, and two of them cut their way through, and got out at the other side.

At the battle of Aliwal, a squadron of the 16th lancers, under Captain Pearson, rode through the Sikh infantry. The gallant leader, dashing in alone, went through them first.

At the battle of Haynau, 26th April, 1813, Colonel Dolfs, at the head of twenty Prussian squadrons, overthrew and captured General Maison's division of the victorious French army, consisting of eight battalions with eighteen guns.

The above examples serve to prove that cavalry have broken squares in numerous instances, and if space would admit many more cases could be adduced.

I will now quote from a translation of Berenhorst's "*Betrachtungen uber Kriegskunst*" on the chances of a charge of cavalry against infantry:—

"To demonstrate the matter better we will examine measure out and calculate the chances of cavalry against infantry conducted according to rule. Let one-sixth of the horses be shot down (the riders are not taken into consideration) this does not stop the advance of the remainder. Suppose the infantry in the situation as above, for which no instructions are given, namely, the volley has been given and the muskets are brought to the charge."

"The second or third rank may have their muskets at the charge or be busy loading, but the front rank have their muskets thrown forward; the right hand grasps the small of the stock, in this position the musket and bayonet reach only three feet beyond the man's elbow. Is the infantry soldier now to aim at the dragoon or his horse? He cannot reach the man, it is four feet from horse nose to the man's waist, and three and a half from the horses forehead to the man's breast."

"The man is further protected by the head and neck of his horse, and if the infantry soldier tries to thrust at him he comes in contact with the horse and is thrown down. But let us admit an impossibility. Every bayonet has been buried in the stomach or breast of the horsemen. Still the horses alone will break the ranks of the infantry. The infantry soldier can only try and aim his bayonet at the horses breast, and let him spit himself like a wild boar. In this case he must hit the heart to kill him, for any other wound would be quite useless at the moment; and even reaching the horses heart cannot save him, for the horse with his great weight, and the impulse of his speed, will dash the whole rank to the ground in his fall."

By these remarks it seems clear that infantry can depend only on its fire to defeat cavalry. The light cavalry charge at Balaklava proves conclusively that the deadliest fire will not stop energetic cavalry.

CHAPTER VII.

HINTS ON THE ORGANIZATION OF CAVALRY.

The subject will be considered under the following heads, viz. 1. Officers. 2. Men. 3. Dress and accoutrements. 4. Arms. 5. Horse furniture. 6. Drill.

1. *Officers.*

The greatest care should be taken in the choice of officers for the cavalry service. They should be young, energetic, intelligent men, accustomed to horsemanship. They should be high-spirited, impetuous, bold and daring, and should have the strongest *esprit-de-corps* and the greatest pride in the service they belong to. They should join the volunteer cavalry from patriotism and soldierly feeling, and with the intention of making themselves efficient officers. And when appointed they ought to read and study carefully the science of their profession, ever keeping in mind the advice

of General Monk, Duke of Albemarle, who says, "Reading and discourse are requisite to make a soldier perfect in the Art Military, how great soever his practical knowledge may be."

2. *Men.*

Every inducement should be given by the Government to encourage the farmers and permanent settlers to join volunteer troops of cavalry instead of having those corps filled with the "migratory classes," who live in the towns and villages. The farmers and farmers sons have horses of their own, and know how to ride them; they have a greater interest in the country than any other class, and when drilled they would remain in the Province, and always be useful in case of war or invasion.

The best inducement that could be offered to bring farmers into the force would be the exemption from Statute labor, for it is a privilege that would be of no use to the "migratory classes," but only to permanent settlers.

The men should be good horsemen of about five feet eight inches in height, light, active and wiry, and the officers should take the greatest pains to encourage a strong *esprit-de-corps* among them. Too much pains cannot be taken in keeping up this spirit, for it will inspire soldier to greater deeds than either duty, patriotism or discipline. It was *esprit-de-corps* that led the Old Guard of Napoleon to victory for more than ten years, and it was the same feeling which caused them to die, rather than surrender on the fatal field of Waterloo. It was *esprit-de-corps*, and the knowledge that the honor of the cavalry service was at stake, that led the light cavalry at Balaklava to make that brilliant charge which gained them so glorious a name; and which has immortalized the "six hundred" British dragoons who rode in the ranks through the "valley of death."

3. *Dress and Accoutrements.*

The dragoon should be dressed in jacket and overalls of blue cloth, with white facings, as white facings look cleaner, and are more easily cleaned than any other color, and also serve to distinguish them from the artillery. The head-dress should be very light and low, there is nothing so detracts from dragoons efficiency as the tall heavy chaco at present in use, the height of it impedes the man in the use of his sword, and the wind acts so powerfully on the hat and plume that it is almost impossible to ride fast against the wind with them on. The chaco also is so high that it would impede dragoons in this country from moving through woods or forests. Dragoons should also have jack-boots to go over the overalls and to reach the knees as they would be a great protection to the men in the ranks, and would also save the overalls, which in service soon get destroyed from mud and wet. They should also be provided with cloaks, as they are very comfortable to sleep in, and in cold weather keep both man and horse warm, especially when the man is acting as a vidette, as the heat of the horse rising under the cloak keeps the man quite warm. They should also have gauntlets with a strong steel guard in the left one to protect the outside of the bridle arm to the elbow, this would afford a great protection if the dragoon should be attacked on the left side.

4. *Arms.*

Cavalry should be armed with swords and Colt's revolvers, their scabbards ought to be lined with wood throughout, and the swords should be kept as sharp as razors, they cannot be too sharp, for the sword is the dragoons principal weapon, every pains should be taken to keep it efficient. The pistol is only of use for giving alarm, for outpost duty, and to enable cavalry to attack posts that they cannot reach when mounted. Unless cavalry are dismounted the officer in command should never let them use their pistols, and if

when opposing cavalry, the enemy attack with firearms, he should at once fall upon them, sword in hand, for the mere fact of a dragoon regiment trusting to firearms when they have good swords is a sign that they are altogether deficient in the requisite qualities of a cavalry corps.

5. *Horse Accoutrements.*

The shabracque and sheepskin should be done away with, as they only add unnecessary weight to the horses accoutrements, and the sheepskin if once wet is very difficult to dry; a small felt saddle cloth should be substituted, as it makes a better and firmer seat. Every effort must be made to get the valise as light as possible, and to bring the weight of the man and accoutrements within 200 pounds.

6. *Drill.*

Volunteer cavalry should be carefully taught all the manœuvres, and drill contained in the cavalry regulations issued by the Adjutant-General's Department. The officers should also learn carefully all the details of outpost and patrol duty, and be provided with works on the subject, for if they were ever put on active service they would most certainly be employed on outposts and patrols, and there is no duty so important to the safety of an army. Col. Short's manual of outpost duties is a book that all cavalry officers should study, also Col. Jebb's work on outposts.

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